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A

LETTER TO THE PATENTEE,

CONCERNING THE

MEDICAL PROPERTIES

OF THE

FLEECY HOSIERY.

BY WILLIAM BUCHAN, M.D.

AUTHOR OF DOMESTIC MEDICINE.

—— Rigid Winter's Ice no more ſhall wound
The only naked Animal; but Man
With the ſoft Fleece ſhall every where be clothed.

DYER'S FLEECE.

THE FOURTH EDITION,
WITH ADDITIONAL NOTES AND OBSERVATIONS
BY THE EDITOR.

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DR. BUCHAN, *with his uſual liberality, not only complied with the requeſt of the Patentees, to allow his letter to be made public, but has improved this Edition by ſeveral new articles and obſervations, which have occurred ſince its firſt publication, tending further to illuſtrate the medical uſes of the* FLEECY HOSIERY. *The Patentees have alſo to acknowledge their obligations to many Friends, for letters containing accounts of the benefits they have received from this manufacture. From theſe letters the Editor has ſelected a few cures, which are inſerted as notes in this Edition, together with ſome extracts from a Treatiſe on Tropical Diſeaſes, written by the judicious* DR. MOSELEY, *whoſe ideas, founded on extenſive practice and obſervation, entirely coincide with thoſe of* DR. BUCHAN, *concerning the benefits of woollen garments worn next the ſkin, which* DR. MOSELEY *found to be no leſs neceſſary in the hotteſt than they are in the coldeſt climates.*

CON-

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TO

TO

MR. G. HOLLAND, F. S. A.

MANUFACTURER OF FLEECY HOSIERY

TO

THEIR MAJESTIES AND THE ROYAL FAMILY,

No. 99, *HIGH-HOLBORN.*

5. 9. 06.

SIR,

I AM favoured with yours of January 30th, incloſing ſome ſpecimens of your FLEECY HOSIERY, and requeſting my opinion concerning its medical properties, and the diſeaſes in which I think it is moſt likely to prove beneficial to mankind.

As you aſſure me that the firſt hint of the medical utility of your manufacture was taken from my DOMESTIC MEDICINE, and that the favourable opinion which I expreſſed of the ſmall ſample you ſhewed to me ſome time ago, had induced you to take out a Royal Patent for making it, I find myſelf called upon to ſupport my opinion; and I comply with your requeſt the more readily, as I am convinced that your diſcovery will prove of eſſential ſervice to many of my fellow creatures, labouring under the moſt obſtinate maladies.

Every one who is at all converſant in theſe matters knows, that, in this country, the moſt fruitful ſource of diſeaſe is obſtructed perſpiration. While the ſecretion from the ſkin goes duly and uniformly on, few diſeaſes affect even the weak and delicate; but where this is obſtructed the moſt robuſt cannot long enjoy health.

The celebrated Sanctorius ſays, the inſenſible perſpiration alone diſcharges more than all the ſenſible evacuations together; and that the proportion of this to all the other evacuations, is as five to three: though this proportion varies in different ages, climates, and conſtitutions, yet it is of ſuch importance in all, that where it is in any conſiderable degree deficient, a diſeaſed ſtate of the body will enſue.

Our inſular ſituation renders the atmoſphere of this country liable to great and frequent changes, and as theſe changes are often very ſudden, every one ought, as far as lies in his power, to guard againſt their influence, by adapting his clothing to the ſeaſon of the year, and the ſtate of the weather. In doing this he only imitates Nature, who never fails to fortify thoſe animals which are left to her care againſt the inclemency of the ſeaſons, in thoſe countries where they are produced. Thus we find the foxes, bears, and other animals, in cold climates, covered with a thick coat of fur, which keeps continually varying with the ſeaſons, and gradually becoming longer and thicker, as the cold increaſes.

What Nature does for the brute creation, art enables man to do for himſelf, and he ſeldom errs in copying her. Care is no doubt neceſſary in making

ing theſe changes; but even here Nature has not left us without a guide: ſhe effects this purpoſe by ſlow gradations, and never ſtarts from one extreme to another. Though man cannot copy her exactly in this reſpect, yet it is in his power to avoid all great and ſudden tranſitions*. Thoſe who heap on loads of clothes on the approach of winter, and are ſo imprudent as to throw them off, at once, on the firſt appearance of ſpring, have only themſelves to blame, if the conſequences prove hurtful.

There is indeed a great ſource of deception in our ſeaſons; ſometimes the winter ſets in with all its rigour before it is expected; at other times it continues mild throughout, and there is occaſion for little additional clothing, even to the delicate. But the moſt irregular ſeaſon, in this country, is ſpring. We have often in March, or April, a few days ſo warm as to make us believe that ſummer is arrived, when all of a ſudden it becomes more intenſely cold than in the middle of winter. Indeed December is ſometimes mild throughout, while every day of June is cold and wet.

This irregularity of our ſeaſons, renders it very difficult to lay down particular rules for regulating the clothing of invalids. It is their buſineſs, therefore, to watch the changes of the weather; and, as far as

* Having dreſſes fleeced of different thickneſſes, the clothing may be varied by imperceptible degrees, from the thickeſt and warmeſt, to the thinneſt, cooleſt, and lighteſt clothing of all others. C. W.

they conveniently can, to counteract their influence, by ſuiting their clothing to the temperature of the air. The hardy and robuſt have indeed leſs to fear from the changes of weather; but there is no perſon ſo ſtrong as to be wholly ſuperior to their influence, and the fool-hardy often loſe their lives by deſpiſing it.

The moſt proper clothing for counteracting the inclemency of our atmoſphere, is certainly that which affords the greateſt warmth with the leaſt weight. There has not been hitherto, in the article of clothing, any thing invented, where theſe properties have been ſo happily combined, as in your PATENT HOSIERY. I am informed that a ſingle blanket can be made equal, in point of warmth, to ſix of the common ſort, while it does not exceed the weight of one *.

* Sir W. PETTY in his Political Anatomy of Ireland, obſerves, with regret,—" That the art of making the *excellent, thick, ſpungy, warm* Coverlets ſeems to be loſt." FLEECY COVERLETS or BLANKETS, poſſeſs all the good qualities which Sir W. PETTY ſpeaks of, and are, moreover, recommended by their peculiar lightneſs.

The lightneſs of FLEECY BLANKETS muſt recommend them to the Military; for the celerity in the movements of an army, upon which ſo much depends, muſt always be in proportion to the weight of baggage they have to carry. The judicious Dr. MOSELEY in his Treatiſe on Tropical Diſeaſes, the 2d edition, obſerves, " That the clothing our troops were furniſhed with the laſt war, in the Weſt Indies, was too heavy for the climate;" and he repreſents it as abſolutely neceſſary for officers and ſoldiers, on actual ſervice in hot climates, to have clothing poſſeſſing, " *warmth without incumbrance.*" C. W.

This

This difference, in reſpect of weight, is of great importance to the invalid. Hardly able to ſupport his own weight, he can ſtill leſs bear a load of clothing; and even to thoſe who are able to bear a load of clothes they prove hurtful. They compreſs the veſſels, and impede the free circulation of the fluids, on which not only health, but even life itſelf depends; beſides, they encumber the body, and render it leſs fit for active exertions.

The manner in which your FLEECY HOSIERY is made, gives it a degree of elaſticity not poſſeſſed by cloth of any kind; from which many advantages are derived. Thus it adapts itſelf more readily to the figure of the body, or of any part to which it is applied; and, by acting like a perpetual ſpring, the friction is increaſed, by which means the diſcharge from the ſkin is promoted, and at the ſame time carried off by the conducting power of the wool.

In point of cleanlineſs, its preference to fur muſt be obvious to every one. It is not only free from the unpleaſant ſmell which accompanies ſkins of all kinds; but it can, at any time, be waſhed with the greateſt eaſe, and without any conſiderable expence, or diminution of its properties; beſides it is certainly leſs apt to harbour vermin, or communicate infection, than the ſkins of animals, which, though no way ſuperior, are much more expenſive *.

But

* A variety of new articles are now manufactured in imitation of furs; which, for many purpoſes, are preferred to furs: and by

But the moſt decided ſuperiority of the FLEECY HOSIERY, conſiſts in the powers which wool is found to poſſeſs, over all other articles of clothing, in abſorbing and conducting moiſture. This appears from the experiments read before the Royal Society by Sir Benjamin Thomſon, which were made with a view to aſcertain the powers of different ſubſtances, in abſorbing moiſture from the atmoſphere.

Theſe experiments were made with ſheeps wool, beavers fur, eider down, cotton wool, linen, and ſilk; and the reſult was, that wool poſſeſſed a greater power of abſorbing moiſture than any of the others, and was likewiſe better calculated for conducting or carrying off the ſuperfluous moiſture from the body †. Sir Benjamin's experiments are made with accuracy, and the concluſions drawn from them tend ſo fully to eſtabliſh the ſuperiority of your manufacture

by means of further improvements, that are in contemplation, there are hopes of rendering the importation of furs unneceſſary, in a great meaſure, either as objects of elegance or uſe.

We might have inſerted here, a ſtatement of the prices of ſundry articles heretofore made only of fur, contraſted with a ſtatement of the prices of ſimilar articles, manufactured in imitation of furs, greatly in favour of the laſt.

At page 38, under the head of "Articles fleeced or furred of the thickneſs of No. 3 and upwards," the reader will ſee what progreſs has been made towards ſupplying the place of furs and eiderdown. C. W.

† And of courſe theſe experiments prove in particular, among other things, the ſuperiority of FLEECY COVERLETS to eider down quilts in point of wholeſomeneſs. C. W.

over every other ſpecies of clothing, that I ſhall take the liberty of inſerting the ingenious author's inductions in his own words.

"I was totally miſtaken," ſays this candid writer, "in my conjectures relative to the reſults of the experiments with the other ſubſtances. As linen is known to attract water with ſo much avidity, and as, on the contrary, wool, hair, feathers, and other like animal ſubſtances, are made wet with ſo much difficulty, I had little doubt but that linen would be found to attract moiſture from the atmoſphere with much greater force than any of theſe ſubſtances, and that, under ſimilar circumſtances, it would be found to contain far more water; and was much confirmed in this opinion, on recollecting the great difference in the apparent dampneſs of linen and woollen clothes, when they were both expoſed to the ſame atmoſphere. But theſe experiments have convinced me, that all my ſpeculations were founded on erroneous principles.

"It ſhould ſeem thoſe bodies which are the moſt eaſily wetted, or which receive water, in its unelaſtic form, with the greateſt eaſe, are not thoſe which in all caſes attract the watery vapour diſſolved in the air with the greateſt force.

"Perhaps the apparent dampneſs of linen, to the touch, ariſes more from the eaſe with which that ſubſtance parts with the water it contains, than from the quantity of the water it actually holds; in the ſame manner as a body appears hot to the touch, in conſequence of its parting freely with its heat, while another

other body, which is actually at the ſame temperature, but which holds its heat with greater obſtinacy, affects the ſenſe of feeling much leſs violently.

" It is well known that woollen clothes, ſuch as flannels, &c. worn next the ſkin, greatly promote inſenſible perſpiration. May not this ariſe principally from the ſtrong attraction which ſubſiſts between wool and the watery vapour which is continually iſſuing from the human body? That it does not depend entirely upon the warmth of that covering is clear; for the degree of warmth produced by wearing more clothing of a different kind, does not produce the ſame effect.

" The perſpiration of the human body being abſorbed by a covering of flannel, is immediately diſtributed through the whole thickneſs of that ſubſtance, and by that means expoſed to a very large ſurface to be carried off by the atmoſphere; and the loſs of this watery vapour which the flannel ſuſtains, on the one ſide, by evaporation, being immediately reſtored from the other, in conſequence of the ſtrong attraction between the flannel and the vapour, the pores of the ſkin are diſencumbered, and they are continually ſurrounded by a dry, warm, and ſalubrious atmoſphere.

" I am aſtoniſhed that the cuſtom of wearing flannel next the ſkin, ſhould not have prevailed more univerſally. I am confident that it would prevent a multitude of diſeaſes; and I know of no greater luxury than the comfortable ſenſation which ariſes from

from wearing it, eſpecially after one is a little accuſtomed to it.

"It is a miſtaken notion, that it is too warm a clothing for ſummer. I have worn it in the hotteſt climates, and in all ſeaſons of the year, and never found the leaſt inconveniency from it. It is the warm bath of a perſpiration, confined by a linen ſhirt wet with ſweat, which renders the ſummer heats of ſouthern climates ſo inſupportable; but flannel promotes perſpiration, and favours its evaporation; and it is well known that evaporation produces poſitive cold.

"I firſt began to wear flannel, not from any knowledge that I had of its properties, but merely on the recommendation of an able phyſician; and when I began my experiments, I little thought of diſcovering the phyſical cauſe of the good effects which I had experienced from it, nor had I the moſt diſtant idea of mentioning the circumſtance. I ſhall be happy, however, if what I have ſaid or done upon the ſubject, ſhould induce others to make a trial of what I have ſo long experienced with the greateſt advantage, and which I am confident they will find to contribute greatly to health, and conſequently to all the other comforts and enjoyments of life."

Had Sir Benjamin known how far your Manufacture exceeds flannel, both in agreeableneſs and uſe, he would have been ſtill more laviſh in praiſe of it. Indeed it is hardly poſſible to ſay too much in favour of a medicament of ſuch extenſive powers, and which is ſo pleaſant in the application. Many people, who cannot bear the harſh feel of flannel, find the

FLEECY HOSIERY extremely agreeable; and indeed the fineſt down cannot be more delicately ſoft than fine wool ſpread on the ſurface of a texture ſimilar to that of your manufacture. That it is infinitely more pleaſant to the wearer than flannel, I can atteſt from my own experience.

On a review of thoſe diſeaſes in which flannel is known to act, either as a preventive or remedy, they will be found more numerous than all that are cured by any one article of the *Materia Medica*; yet the powers of flannel, even in its moſt improved ſtate, fall greatly ſhort of thoſe poſſeſſed by the FLEECY HOSIERY. It is not only of a ſuperior fabric, but its warmth can be increaſed to almoſt any degree, which cannot be done with flannel without rendering it too heavy for uſe.

Your invention is ſtill in its infancy; but, from what has already been done, we may venture to foretell, that it will become one of the moſt extenſive branches of manufacture *, as well as one of the moſt

* As a branch of manufacture, applying the ſtaple produce of Britain to many new uſes, FLEECY HOSIERY claims the attention of land owners of every deſcription.——SMITH, in his Memoirs of wool, &c. obſerves, "*That wool is an eminent part of the landed intereſt, and conſtitutes a ſhare of that part of the Engliſh wealth which belongs to the Nobility, Gentry, and Clergy of this Kingdom.*" Sir JOSIAH CHILD in his Treatiſe on Wool, and the Woollen Manufacture, has this obſervation——"*That wool is eminently the foundation of the Engliſh riches.*" And Davenant, in his Treatiſe on the Balance of Trade, ſays, "*That among the national calamities, incident to England, this is reckoned one,*"—for wool to ſink in its price. C. W.

uſeful

uſeful remedies; and that it will be of greater ſervice to the afflicted than all the boaſted noſtrums of the age, while it is entirely free from their dangerous qualities.

I ſhall now proceed to point out ſome of thoſe diſeaſes in which your FLEECY HOSIERY will be found the beſt application, not merely as a preventive but as a remedy; and here I muſt ſtudy brevity, as the ſubject is by far too extenſive to be fully diſcuſſed in the compaſs of a letter.

The FLEECY HOSIERY will, in general, be found an excellent medicine, both for the prevention and cure of all diſeaſes ariſing from obſtructed perſpiration. Theſe in our climate include a great variety of diſorders; as colds and coughs, catarrhal affections, conſumptions, fevers, fluxes, aches and pains, piles, rheums, inflammations, *&c.* To treat of all the diſeaſes ariſing from this cauſe would require a volume, I ſhall therefore only touch on ſuch as occur the moſt frequently, and in which I think your manufacture the moſt likely to prove uſeful.

COLDS AND COUGHS.

The phyſician who ſaid that colds killed more than plagues, told a ſerious truth. Had he taught us how to avoid them, he had been one of the greateſt benefactors to the human race that ever appeared. Though your manufacture may not abſolutely effect this great purpoſe; yet the proper uſe of it will go a greater length, both in the prevention and cure of

colds, than the application of any medicine with which I am acquainted. Moſt people place confidence in drugs when they have caught a cold, which only deſtroy their appetite, while the complaint might with eaſe and ſafety be removed by a proper addition to their clothing; but it is in the nature of man to deſpiſe things that are plain and obvious, and to hunt after ſecret medicines; he neglects what is in his own power, while he has implicit faith in the boaſted noſtrum, merely becauſe he is ignorant of what it conſiſts.

CATARRHAL AFFECTIONS.

Catarrhal affections are of the nature of colds, and ariſe from the ſame cauſe, *viz.* an obſtructed perſpiration. An increaſed ſecretion from the glands of the noſe, fauces, and throat, accompanied with ſome degree of fever, mark this diſeaſe, which, in cold and moiſt ſtates of the atmoſphere, proves often ſo common as to conſtitute a true epidemic in this country. The only method of avoiding ſuch complaints is to counteract the influence of the weather, as far as lies in our power. Your happy diſcovery has enabled us to do this more effectually than any thing heretofore invented; without loading the body with clothes, it may now be kept ſufficiently warm, and the perſpiration pretty uniformly ſupported, even in the moſt unfavourable ſtates of the atmoſphere.

CONSUMPTIONS.

Sudden tranſitions from heat to cold, change of apparel, or whatever greatly leſſens the perſpiration, often prove the remote cauſes of conſumption. To avoid a malady which proves ſo fatal to the inhabitants of this iſland, we muſt endeavour to keep that diſcharge as uniform as poſſible, by adapting our clothing to the ſtate of the atmoſphere. Nor are the benefits of the FLEECY clothing confined ſolely to the prevention of conſumptions. In the incipient thiſis, which is generally attended with a ſhort, hicking cough, the prudent uſe of this warm clothing will be found perfectly conſiſtent with the ſoundeſt medical practice: when the patient's ſtrength is exhauſted with colliquative ſweats, the FLEECY clothing will be improper.

FEVERS.

That the ſimple inflammatory fever is generally occaſioned by an obſtructed perſpiration, admits of no doubt. The effect of cold is to augment the tone of the ſyſtem, by which means the action of the heart and arteries is increaſed, and what is called the inflammatory diatheſis induced. Indeed every ſymptom of this diſeaſe ſhews a plethora, or too great fullneſs of the veſſels, which is the well-known effect of an obſtructed perſpiration. The way to prevent this fever, of courſe, is to keep up a regular perſpiration;

and

and to reſtore it when diminiſhed, is the beſt method of cure.

INFLAMMATORY AFFECTIONS.

Local affections of the inflammatory kind, as Saint Anthony's fire, the acute rheumatiſm, inflammation of the breaſt, bowels, *&c.* are likewiſe the genuine offſpring of obſtructed perſpiration. In countries where the perſpiration goes on uniformly, theſe diſeaſes are hardly known; but every one knows their frequency, and multitudes feel their direful effects, in this country. They are ſtill, however, more dreadful in colder climates, where, as we learn from Boyle's Hiſtory of Cold, the inhabitants often die of affections of the bowels, accompanied with the moſt excruciating torment. There can be no doubt but a proper application of your manufacture might be of great uſe in preventing theſe maladies.

DIARRHŒA.

The diarrhœa, and other affections of the bowels, are often accaſioned by obſtructed perſpiration; nor can any thing relieve theſe complaints more effectually than reſtoring this neceſſary evacuation. I have often known an obſtinate looſeneſs cured by the patient's wearing flannel next his ſkin; but whatever can be done by flannel, more is ſurely to be expected from the uſe of your manufacture; and I would adviſe

viſe all perſons who have tender bowels, to keep up a due perſpiration, by wearing it of a proper thickneſs. This will be found more agreeable, and likewiſe more ſafe than the uſe of aſtringent medicines.

DYSENTERY.

A modern medical author, in his Treatiſe on Tropical Diſeaſes, "conſiders the dyſentery, or bloody flux, as a *fever of the inteſtines*; and adds, "that the cauſe is *obſtructed perſpiration*, and that the cure conſiſts in turning back the circulation to the ſurface of the body, and increaſing the perſpiration by the moſt active *ſudorifics* *." Now it is evident that no kind of medicine can promote perſpiration, ſo ſpeedily and to that degree which a ſhirt or dreſs of FLEECY HOSIERY is capable of, when made of a ſufficient thickneſs. By this the perſpiration may alſo be continued for any length of time, without that inconvenience to patients, which muſt unavoidably be occaſioned by repeating internal medicines, and by hot rooms and a heavy load of bedding.

HYPOCHONDRIACAL AFFECTIONS.

All people of delicate nerves have tender bowels, and though they ſhould not wear it any where elſe, they would do well to keep the ſtomach and bowels

* Dr. Moſeley.

covered

covered with a piece of your comfortable clothing, of a ſufficient thickneſs. Even this partial uſe of it will, in many caſes, be of ſingular ſervice. Thoſe who have weak lungs, will reap equal benefit from wearing a piece of it over the breaſt.

INFLAMMATION OF THE THROAT.

Thoſe who are ſubject to the common angina, or inflammation of the throat, will find a piece of your FLEECY HOSIERY, worn about the neck, the beſt preventive, nor is it by any means an indifferent remedy. It is more efficacious, and much more agreeable, than the common practice of applying a dirty ſtocking round the neck. When the diſeaſe does not yield to this, it will be neceſſary to rub the throat with a liniment made of equal parts of olive oil and ſpirits of hartſhorn, and to apply the hoſiery over it, of a conſiderable thickneſs.

GOUT.

Among the foremoſt in the liſt of thoſe diſeaſes, where the FLEECY HOSIERY is proper, ſtands the gout. Perſons ſubject to this diſorder ought to keep up the perſpiration at all times, eſpecially in the extremities. This will be found one of the ſafeſt and beſt preventives, and alſo the moſt agreeable that can be employed. To keep the part eaſy, ſoft, and uniformly warm, is almoſt all we can do, during a paroxyſm

roxyſm or fit of the gout. For this purpoſe there is not any thing better calculated than the FLEECY HOSIERY. I have recommended wool in the gout, for above thirty years, and have never found cauſe to change my opinion of it *. Your manufacture, however, is in many reſpects preferable to wool, as it poſſeſſes all its properties without the inconveniences attending the application of it.

The gout has in all ages been reckoned the REPROACH OF MEDICINE; and the wiſeſt among the faculty, have ever been the moſt cautious in their treatment of it. Notwithſtanding the boaſted noſtrums of ignorant quacks and pretenders to medicine, we are not at this day in poſſeſſion of a remedy for this painful diſorder. All that the phyſician can do is to recommend a proper regimen, during the intervals of the diſeaſe, and to give directions for the treatment of the patient while under the fit or paroxyſm. The former conſiſts chiefly in temperance and exerciſe, and the latter in keeping the parts affected eaſy and uniformly warm, as recommended above. Patients who follow this plan may live many years, notwithſtanding their having regular fits of the gout; while thoſe who diſturb the progreſs of this capricious malady, by medical applications, will be found to ſport with their own lives, and will often have cauſe to repent of their impatience and temerity †.

RHEU-

* See Domeſtic Medicine, under the Article GOUT.

† The pain and ſwelling occaſioned by the gout is ſometimes

RHEUMATISM.

The rheumatiſm is not only a more common, but alſo a more obſtinate diſorder than the gout. That it admits of no remedy, ſave *patience and flannel*, is an old adage. We can now, however, boaſt of a remedy far ſuperior to the beſt flannel. The advantages of the FLEECY HOSIERY over flannel will appear on the ſlighteſt inſpection; but on trial it is ſtill more obvious. I have often recommended it in rheumatic affections, and have never been diſappointed in my expectations from it. In the chronic rheumatiſm, indeed, it requires time; yet even here it will be found to perform a cure ſooner than any other remedy. In this ſpecies of rheumatiſm the patient is often put to much trouble and expence in attending the mineral waters, and warm baths; but many cannot afford to do ſo, and we are inclined to think, that the neceſſity of repairing to thoſe faſhionable places of reſort might often be ſuperſeded, by uſing the FLEECY clothing for a ſufficient length of time. It has this advantage over warm water, that its operation is continual, whereas the other can only be applied for a very limited time*.

relieved in a few hours, by the warmth and perſpiration brought on by wearing thick-fleeced ankle-ſocks, &c. and FLEECY gloves have reſtored hands that had been fixed by the gout, and rendered uſeleſs for many years. C. W.

* References can be given to many perſons who have been relieved from the rheumatiſm, in a ſhort time, after having been long afflicted with it. C. W.

ACHES

ACHES AND PAINS.

In every part of this iſland, where I have been, the old people univerſally complain of what they call *pains in their limbs*. This is evidently a ſpecies of the rheumatiſm, and is peculiarly incident to women who live on poor diet, are thinly clothed, and inhabit cold damp houſes. It does not appear to me, that any thing could be ſo beneficial to theſe people as to have their limbs clothed in your comfortable woollen manufacture. This would certainly prove the beſt preſervative againſt thoſe pains, which not only render theſe poor people very miſerable, but often a burden to ſociety. They cannot indeed always purchaſe it themſelves, but the benevolent could not employ their charity better than in ſupplying them with an article ſo neceſſary for health; and even thoſe who have the care of the poor ought, on principles of economy, to ſupply them with this kind of clothing, to prevent their becoming totally unfit for labour, and conſequently a greater burden to the public.

PILES.

This painful diſorder is often occaſioned by cold. I have known it induced by ſitting on the damp ground, throwing off a flannel petticoat, or wearing a thinner pair of breeches than uſual. Perſons ſubject to the piles, ought carefully to avoid every thing that may excite a diſeaſe ſo diſagreeable in itſelf, and

which often ends in obſtinate ſores or fiſtulous ulcers. It does not appear to me, that any thing would prove more efficacious, in warding off this painful malady, than the proper application of the FLEECY clothing, particularly towards the ſeat of the diſorder; nor will it be found leſs uſeful as a remedy, when the diſeaſe has actually taken place.

DROPSY.

There is no diſeaſe the cure of which depends more on promoting perſpiration than the dropſy. In all patients labouring under this malady the ſecretion from the ſkin is defective, and ought by all means to be promoted. This cannot be done ſo effectually, as by wearing your manufacture of a ſufficient thickneſs. I am credibly informed, that the dropſy has been cured by the patient's wearing your FLEECY HOSIERY, after the moſt powerful medicines, accompanied with the uſe of flannel, had proved totally ineffectual*.

ASTHMA.

People afflicted with the aſthma are always in danger, and often loſe their lives from a ſudden check of

* The Dr. has lately favoured us with an inſtance of the beneficial effects of the FLEECY HOSIERY in the dropſy. A young lady who had been under the care of ſeveral Phyſicians for this obſtinate malady, without receiving any relief, was by his deſire clothed from head to foot in the FLEECY HOSIERY, and he has been informed that ſhe ſoon afterwards got quite well. C. W.

perſpiration.

perſpiration. They ought carefully to watch the changes of the weather, and to fortify themſelves againſt them by adapting their clothing to the temperature of the atmoſphere. I would adviſe aſthmatic patients to beware of the cold, raw, eaſterly winds, which prevail in our ſpring, and towards the ſetting-in of winter, and to avail themſelves of your happy diſcovery for counteracting their influence *.

APOPLEXY.

The apoplexy is now ſo frequent as to become truly alarming. It ſeldom, however, attacks people till the decline of life, when the perſpiration becomes defective, and the ſkin grows dry and rigid. When the diſcharge from the ſkin is obſtructed to ſuch a degree, that the ſuperfluous moiſture of the body cannot be carried off by the other emunctories, or common outlets, a *plethora*, or too great fullneſs of the veſſels, muſt enſue. This will induce a prediſpoſition to apoplexy. To ward off the dreadful blow as long as poſſible, the perſpiration muſt be kept up; and I know not any thing more proper for this purpoſe than your FLEECY HOSIERY, prudently applied, and accompanied with a ſufficient degree of bodily exerciſe.

* A perſon who had been a long time very ill of the aſthma was greatly relieved by wearing a thick fleeced ſhirt. C. W.

PALSY.

The apoplexy and palſy make their attack about the ſame time of life, and often accompany each other, which renders it probable that, in ſome meaſure, they depend on the ſame cauſe. That your manufacture is calculated to prevent the palſy, I will not take upon me to ſay; but I am certain that, in many caſes, it will be found a very proper remedy*. The torpor of a paralytic limb renders ſome warm and ſtimulating application neceſſary; and this intention is more likely to be anſwered by your hoſiery than flannel, as it not only poſſeſſes a greater degree of warmth, but is, from its texture, better adapted to act as a ſtimulus to the ſkin.

DEAFNESS.

Few things prove more troubleſome to perſons in the decline of life than deafneſs. This is generally occaſioned by cold in the head. I have often known deafneſs cured by a warm night-cap; and would recommend it to all who are afflicted with this malady, to wear caps of your manufacture. Theſe caps will not only remove deafneſs, but will be found likewiſe

* A paralytic ſtroke left a lameneſs and perpetual pain in the knee of a gentleman advanced in years, for which he conſulted the moſt eminent of the Faculty, but obtained no relief for three years; at laſt he had recourſe to FLEECY HOSIERY, which wholly removed the pain, and gradually reſtored the ſtrength of the knee. C. W.

to obviate many other complaints, as the tooth-ach, head-ach, pains of the face, &c. In all caſes where the head is wet, either by bathing or violent exerciſe, theſe caps will be found of the greateſt ſervice. This I am told has been frequently experienced by ſportsmen, who, by uſing them when heated in the chace, have never caught cold. There are no people ſo careleſs as the inhabitants of this country, with regard to the covering of their heads during the night; and this neglect is the ſource of many diſorders, beſides thoſe mentioned above*.

SKIN DISEASES.

Cleanlineſs and warm clothing are the great preventives of ſkin diſeaſes. Where the ſkin is not ſufficiently defended againſt the inclemency of the weather, it becomes rigid, and conſequently unfit for tranſmitting the perſpirable matter through its pores. The internal diſorders, ariſing from this cauſe, have already been taken notice of. The external are, ſcabby and ſcaly eruptions, foul blotches, defedation of the ſkin, chilblains, and ſuch like. Theſe are always found to prevail moſt among the poor, who go dirty and are ill clothed. The chilblains, indeed, affect young people of all ranks, yet this complaint might generally be prevented by keeping the feet and legs

* A deafneſs, of ſeveral years continuance, that had withſtood every medical application, was totally removed in a ſhort time, by wearing a FLEECY night-cap. C. W.

dry,

dry, and ſufficiently warm. For this purpoſe I know of no application equal to your foot-ſocks and fleecy hoſe *.

AGUE.

In countries where agues prevail, and the pallid inhabitants are ſhook, like the aſpine leaf, for at leaſt one half the year, there is reaſon to believe, that a ſpecies of clothing ſo perfectly adapted to defend the body againſt the moiſture of the atmoſphere, and keep up an uniform degree of warmth, would be found ſuperior, both in ſafety and efficacy, to any internal medicine whatever. Indeed the internal medicines made uſe of for this purpoſe, are generally of ſuch a nature that, if they keep off one diſeaſe, they induce others, which prove equally, if not more fatal.

FLEECY HOSIERY, IN VARIOUS SITUATIONS, THE BEST PRESERVATIVE OF HEALTH.

How pernicious that kind of clothing muſt be which retains the moiſture, and keeps it in continual contact with the body, to men who work in damp ſituations, will appear from Sir Benjamin Thomſon's experi-

* Several perſons, who had tried various medicines for the ſcurvy, without relief, had recourſe to ſhirts and drawers of FLEECY HOSIERY; and, after wearing them a ſhort time, the diſorder came off in ſcales, and left their ſkins perfectly clear. C. W.

ments; and the advantage of the FLEECY HOSIERY, in conducting it off, will be no leſs obvious. Spalden, the celebrated diver, told me that he could not live under water in any dreſs but flannel. In other clothing he was chilled with cold, but, with a ſufficient quantity of flannel, he found himſelf pretty comfortable*. Had he known the ſuperior advantages of your manufacture, he would no doubt have been ſtill more ſo.

To travellers, in cold countries, your manufacture muſt be of the greateſt uſe, particularly the FLEECY gloves, pantaloons, foot-baſkets, and great coats. The extremities always ſuffer moſt from cold, and are in the greateſt danger of mortification. I ſhall not be ſurpriſed if your manufacture become the common clothing of the northern nations. Where the inhabitants are obliged to have recourſe to furs in winter, the FLEECY clothing will, I am convinced, be found to anſwer their purpoſe much better, and will likewiſe prove far more agreeable to the wearer†.

It

* Dr MOSELEY relates, that "Dr. IRVING, with a ſmall party of men, lay in the woods, on the Muſquito ſhore, for fourteen days and nights, during the rainy ſeaſon of 1780, without taking off his clothes, while he was exploring a paſſage to the Spaniſh ſettlements up Blue-Fields River. He eſcaped without the leaſt injury to his health, having blankets with him, and being clothed in a ſhirt, ſhort jacket, breeches, and ſtockings, all made of flannel. The others, not uſing the ſame clothing, ſuffered ſeverely, without expoſing themſelves to the ſame fatigue and danger."

† This new manufacture, in proportion as it is encouraged, muſt ſave much wealth to the nation, which is now expended in purchaſing furs from abroad, and by extending the uſefulneſs of the ſtaple

It will not, however, ſo readily occur, that the FLEECY HOSIERY is the moſt proper clothing for the inhabitants of the hot climates; yet this is acknowledged to be the caſe by all who have made the trial. It can certainly be made more light than any other kind of clothing, and with ſo thin a ſprinkling of wool as to act more as a cooler than a heater of the body, while it conducts off the moiſture from the ſkin much faſter than any other kind of clothing*.

There is no ſet of men to whom the FLEECY HOSIERY is more likely to prove beneficial, than thoſe who have lived in hot climates; they univerſally complain, that, even with the warmeſt flannel and thickeſt clothing, they are not able to ſupport the inclemency of our winters. Thoſe, however, to whom I have had an opportunity of recommending your manufacture, have all told me, that, by wearing it next their ſkin, they have found themſelves ſuffi-

product of Britain, both at home and abroad, confirm the opinion of the late LORD HEATHFIELD, expreſſed in his declaration reſpecting FLEECY HOSIERY—"That the manufacture will, when generally known, be of national Importance." C. W.

* Since this letter was firſt publiſhed, we have had occaſion to converſe with ſeveral intelligent perſons who had reſided in the warm climates, all of whom agree in thinking, that light woollen clothing is better adapted to the hot countries than linen; according to their experience and obſervation, the former is found to conduct and carry off the moiſture, while the latter retains it, and, inſtead of defending the body againſt its influence, increaſes the danger. From the beſt information, we have reaſon to believe, when the qualities of the light FLEECY HOSIERY are ſufficiently known, that it will be found equally proper for the inhabitants of the Tropical as of the Polar regions.

ciently

ciently warm and comfortable, even in the coldeſt ſeaſon.

All perſons who ſit to read, write, or work, eſpecially in cold rooms, ſuch as many of the public offices are, ought to have their feet and legs clothed in your FLEECY HOSIERY. For the circulation in the limbs is obſtructed by much ſitting, and a chilly torpor brought on the feet and legs, which paves the way to edematous ſwellings, paralytic affections, and the like. Moſt women may be ranked among the ſedentary, and many of them are afflicted with various maladies ariſing from this cauſe. It is impoſſible to ſay too much in favour of your manufacture, worn as under garments by the ladies, in a climate ſo variable as ours, where more than half the diſeaſes which afflict the ſex will be found to ariſe from cold.

In caſes of ſuſpended animation, as it is called, where a perſon is to all appearance dead, and where the great object is to recall the latent principle of life, by reſtoring the genial warmth, and exciting the actions of the ſyſtem, it will be readily allowed, that few things are likely to have a more happy effect than wrapping the body in ſome of the thickeſt of your FLEECY HOSIERY, made as hot as poſſible. This will not only receive a much greater degree of heat than a common blanket, but, retaining the heat longer, will be found a much more ſuitable application than the other, while it is ſooner and more eaſily prepared than a warm bath.

I can imagine many ſituations where your manufacture would be of ſingular ſervice, both to ſailors

and ſoldiers. The former are often obliged to keep on their wet clothes for ſeveral days together, and the latter to continue in camp during cold and wet ſeaſons, or in a low damp country. I have been told by ſeveral of the officers who lay in camp on Newcaſtle Moor, in winter 1745, that half the army muſt have periſhed by cold, had it not been for the flannel waiſtcoats given to the ſoldiers by the good people called Quakers. No one who has ſeen it needs to be told, that your manufacture would prove more beneficial than flannel to men in ſuch ſituations.

That warm clothing would greatly contribute towards the preſervation of the military, in hot as well as in cold climates, is evident from Dr. MOSELEY's Treatiſe on Tropical Diſeaſes. In almoſt every page of this uſeful work, the Doctor ſhews the neceſſity of flannel, or ſome other warm clothing, for preſerving the health of men expoſed to the exceſſive rains and chilly dews of tropical climates. Of the good effects of this he gives many inſtances. Nor were its benefits confined to the preſervation of health: in the cure of all complaints ariſing from obſtructed perſpiration, which even between the tropics are very numerous, the moſt ſucceſsful practice was to reſtore that neceſſary evacuation as ſoon as poſſible. How well the fleecy clothing is calculated to effect this important purpoſe muſt be obvious to all.

In point of economy, few things will be found to equal your invention. It will not only ſuperſede the uſe of furs, but, in many caſes, even of fuel; which,

to

to the inhabitants of cold countries, proves very expenſive. Nor does the evil end here. Perſons who ſit roaſting themſelves near a great fire injure their health. They breathe a burnt, unwholeſome air, and, after all, are but half warmed. A perſon clothed in a ſufficient thickneſs of your manufacture will hardly find occaſion for fire in any ſituation; and he will feel himſelf much more comfortable than by the fire-ſide, where he is burnt on the one ſide, and frozen on the other. In one word, your invention may truly be ſaid to unite economy, pleaſure, and uſefulneſs; which is more than moſt of our modern diſcoveries can boaſt.

I ſhall conclude this letter, already too long, by recommending to you the moſt active perſeverance in the proſecution of your plan. You have not only made a great improvement in the woollen manufacture, but alſo in medicine. Your FLEECY HOSIERY, judiciouſly applied, will not only in many caſes preſerve health, but prove more beneficial to the afflicted than any thing that has been diſcovered in the medical art for theſe many years: like other uſeful diſcoveries, however, it will meet with oppoſition; but patience and perſeverance will overcome it all, and you will find, beſide the brave defender of Gibraltar*, many

* The Right Honourable Lord HEATHFIELD wrote a letter to the Patentee, ſetting forth the benefits he had received from the FLEECY HOSIERY, and promiſing to recommend it to his friends, both at home and abroad.

who

who will ſtep forward to do juſtice to your uſeful invention.

Wiſhing you all that ſucceſs to which your merit is ſo juſtly entitled,

I am, SIR,

Your moſt obedient ſervant,

March 10, 1790. W. BUCHAN.

POSTSCRIPT.

If the ſentiments contained in this Letter wanted the ſanction of authority, it would be eaſy to adduce a number of eminent authors, both ancient and modern, who have entertained the ſame ideas. The celebrated Boerhaave uſed to ſay, that nobody ſuffered from cold, except beggars and fools: the former not being able to purchaſe clothes, and the latter not having ſenſe to uſe them. This certainly ſhews, that, in the learned Doctor's opinion, the effects of cold might be obviated by a proper attention to clothing.

It is ſaid of the celebrated Mr. Boyle, whoſe delicacy of conſtitution rendered it neceſſary for him to adapt the warmth of his clothing to the ſtate of the weather, that he had a veſture ſuited to every ſeaſon of the year; and it is much in favour of his plan, that, although a valetudinarian, he died at an advanced age.

But the author whoſe ſentiments are moſt in point is the learned Sanctorius, Profeſſor of Phyſic at Padua,

dua, who firſt eſtabliſhed the doctrine of inſenſible perſpiration, on undeniable grounds, and ſhewed its importance in the animal economy, and its influence on health. Though the doctor lived in a more temperate climate than ours, yet the following aphoriſms, which are ſelected from a great number, will ſhew how much he thought health depended on the inſenſible perſpiration being duly and regularly kept up.

APH. XL. SECT. I.

" Whenſoever nature is diſturbed in the buſineſs of perſpiration, ſhe ſoon begins to be defective in many more of the animal functions.

APH. LXVII.

" The external cauſes which are wont to hinder perſpiration are, the cold air, and that which is damp and foggy; ſwimming in cold water, &c.

APH. LXXXVI.

" Old age may truly be reckoned a diſtemper, but it may be long protracted if the body perſpires well.

APH. LXXXVIII.

" The humours of gouty people, even the moſt thick, are carried off only by perſpiration.

APH. XCII.

" A looſeneſs may be removed by increaſing the quantity which is to be perſpired, as often happens in warm bathing.

APH. CII.

" Hypochondriacal perſons are cured by promoting perſpiration.

APH,

APH. CXV.

"In autumn the weight of the body increaſes, owing to the diminiſhed perſpiration, which, if it be beyond a healthful ſtandard, will produce tertians and putrid fevers.

APH. XIV. SECT. II.

"Swimming in cold water, after violent exerciſe, is very delightful, but fatal; for nothing is more deſtructive than extremes.

APH. XXI.

"A cool wind always hinders perſpiration, and is hurtful.

"Any draught of air has the ſame effect.

APH. XLVI.

"There is no danger of the autumnal diſtempers, if the body be well guarded againſt the increaſing cold by warm garments.

APH. XLVII.

"To be well covered with clothes, aſſiſts perſpiration, and lightens the body.

APH. L.

"They who, in ſpring, throw off their winter garments too haſtily, and are too backward in putting them on again in the fall, in the ſummer are ſubject to fevers, and in the winter to defluxions."

A LIST

A

LIST OF ARTICLES

MANUFACTURED BY

HOLLAND, WAISTELL, AND *HORTON,*

PATENTEES OF THE FLEECY HOSIERY.

No. 99, *HIGH-HOLBORN.*

ARTICLES for Perſons in Health, and for the Prevention of Diſorders, are fleeced to the Thickneſs of No. 1. *for Summer wear, and to the Thickneſs of No.* 2. *for Winter. Theſe Numbers have a Reference to a Scale of Thickneſs graduated from No.* 1. *to No.* 6.—*No.* 1. *is lined with a thin Sprinkling of the fineſt Wool, and No.* 6. *is an Inch thick.*

Articles fleeced of the Thickneſs of No. 1. *and No.* 2. *on Silk, Cotton, and Worſted.*

FOR PERSONS IN HEALTH, AND FOR THE PREVENTION OF DISORDERS.

Hoſe fleeced all through.
Ditto fleeced in the feet only.
Ditto fleeced in the feet and ankles.
Gauze hoſe fleeced to be worn under ſilk hoſe.
Silk hoſe interlined, and interlinings for ſilk hoſe.
Socks and ankle ſocks.
Knee caps.

Shirts, with or without ſleeves.
Chemiſes and ladies under-waiſtcoats.
Drawers and Petticoats.
Pieces for under-waiſtcoats, drawers, and petticoats.
Pieces for waiſtcoats and breeches.
Night caps for ladies and gentlemen.
Gloves, mitts, muffatees, and muff-linings.
Gloves fleeced with Vigonia wool.

Articles fleeced or furred of the Thickneſs of No. 3. and upwards, as Subſtitutes for Fur and Eiderdown.

Robes, peleſes, morning gowns, wrapping gowns, and great coats, for ladies and gentlemen, both white and in colours.
Linings for cloaks, and muff-linings.
Muffs, tippets, and gloves.
Travelling caps.
Feet baſkets for coaches, cold rooms, and churches.
Ditto covered with leather and ornamented with fringe.
Coach carpeting.
Houſings for ſaddles.
Imitations of lion's ſkins, leopard's ſkins, and various kinds of fur.
Waiſtcoat fronts furred with cotton, that has the appearance and ſoftneſs of ſilk.
Stirrup ſtockings.
Bootikins, ſoaled and calaſhed, for complaints and to travel in.

Long

Long boot-hoſe, ſoaled and calaſhed, for complaints and to travel in.

Pantaloons, ditto, ditto.

Blankets and cradle blankets.

FOR THE RHEUMATISM AND OTHER COMPLAINTS.

Hoſe and under-hoſe.

Socks and ankle ſocks for ſleeping in.

Knee caps.

Shirts, drawers, and petticoats.

Breaſt plates, or boſom friends.

Collars for ſore throats.

Gloves, mittens, muffatees, and muff-linings.

Worſted Articles fleeced of the Thickneſs of No. 6.

FOR THE GOUT.

Large hoſe very elaſtic.

Ankle ſocks ditto.

Knee caps ditto.

Gloves and mittens ditto.

Shirts, drawers, and petticoats.

Breaſt plates, or boſom friends.

Night caps.

Shoes and bootikins.

Pieces from half a yard to three quarters wide.

FLEECY HOSIERY, like all woollen Articles, muſt be waſhed in a moderately hot Lather of Soap, but without rubbing Soap upon it. Shake it when waſhed out, and again when nearly dry, to raiſe the fleece; but do not dry it near the Fire.

5. 9. 06.

FINIS.